

Appl. No. 09/768,953
Arndt, Dated August 23, 2004
Reply to Office action of May 21, 2004
Attorney Docket No. P12877-US1
EUS/J/P/04-2268

Amendments to the Specification:

Please replace the paragraphs beginning at page 7, line 19 through page 9, line 2, with the following rewritten paragraphs:

-- An application level server for managing the resource reservation to establish quality of service according to the invention includes a functional entity. This functional entity identifies necessary parameters required for performing the resource reservation and changing signalling messages. The functional entity further requests from a resource reservation protocol proxy, quality of service between an access node and an end node. The server instructs the terminal to not use its resource reservation protocol if it has any. ~~A server according to this first aspect of the invention is hereby characterised by what is the features of claim 1.~~

A communication system for carrying out resource reservation to establish quality of service between a terminal and an end node includes an IP network. A resource reservation protocol proxy, the end node and the application level server mentioned above are connected to the IP network. The terminal is connected to an access node by means of establishing an access bearer with quality of service in a link level. The access node is connected to the resource reservation protocol proxy which performs resource reservation to establish quality of service on an IP level, between the proxy and the end node. The IP network uses a resource reservation protocol. ~~A communication system according to this second aspect of the invention is hereby characterised by what is the features of claim 15.~~

According to a third aspect of the invention, the server indicates that the resource reservation signalling applies from the access node towards the end node. The server further identifies parameters, necessary for reserving resources to establish quality of services. The proxy reserves resources with quality of service on the IP level, according to the necessary parameters. The resources are reserved between the access node and the end node. An access bearer with a quality of service on the link level is

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~~established between the terminal and the access node. A method according to this third aspect of the invention is hereby characterised by what are the features of claim 20.~~

According to a fourth aspect, the invention can be implemented by software code segments and e.g. be stored in any of the relevant entities of a communication system, such as a resource reservation proxy, an application level server, a gatekeeper etc. The computer program product is directly loadable into the internal memory of a digital computer within the entities and includes the software code portions for performing the steps of the method according to the invention, when said program is run on a computer. ~~A computer program product according to this fourth aspect of the invention is hereby characterised by what are the features of claim 41.~~

According to a fifth aspect of the invention the computer program product is stored on a computer usable medium, comprising readable program for causing a computer, within an entity in the communication system according the invention, to control an execution of the steps of the method according to the invention. ~~A computer program product according to this fourth aspect of the invention is hereby characterised by what are the features of claim 42. --~~

Please replace the paragraph beginning at page 16, line 20, with the following rewritten paragraph:

-- 802 Call control signalling CCS, using H.225.0/Q.931 takes place as well as other signalling such as master slave determination, terminal capability exchange etc. using H.245 signalling. Among these the capability exchange signalling, which is of significance for the present invention, is shown in FIG. 8 as reference number 802. In the capability exchange signalling, the terminal 605 indicates in the TerminalCapabilitySet message, which is to be sent towards the end node 608, that quality of service is not going to be used since the terminal 605 is told to not use its resource reservation capabilities. But the end node 608 must not know the decision

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to not use resource reservation, since the quality of service will be established by the RSVP proxy within the radio access node 603. Accordingly, the Gatekeeper 609 changes the QoSMode field in the TerminalCapabilitySet message from being not set to be set, as to indicate that quality of service is supported and also which type of quality of service mode, before it is forwarded towards the end node 608. This means that that RSVP signalling may be used between the radio access node 603 and the end node 607. The end node 608 answers, in a TerminalCapabilityset message in the opposite direction, which quality of service mode it will use. In RSVP there are different classes of quality of service modes, e.g. guaranteed quality of service or controlled lode. When this message, on the way towards the terminal 605, passes through the Gatekeeper 609, the Gatekeeper 609 intercepts the quality of service mode and removes which quality of service mode to be used from the message before forwarding it. The quality of service mode is one of the necessary parameters, to be used for performing the resource reservation process as described under FIG. 5. Further, this message indicates that quality of service is might be used, but the terminal 605 must not know that, since it will be established by the RSVP proxy within the radio access node 603. Accordingly also this message is further changed by the Gatekeeper 609 as to indicate that quality of service shall not be used, before it is forwarded to the terminal 605.) --

Please replace the paragraph beginning at page 19, line 17, with the following rewritten paragraph:

-- 806 A radio access bearer is established with a corresponding quality of service between the link layer in the terminal 605 604 and the link layer in the radio access node 603. In a UMTS network scenario, this would be initiated by the terminal 605 sending an ActivatePDPContextRequest message according to UMTS Session Management signaling (Technical Specification 24.008; "Mobile Radio Interface layer 3 specification, core network protocols--stage 3", v3.2.1, 3.sup.rd Generation Partnership Project (3GPP)). When it is done is of no significance for the invention, only that it is necessary at some stage. --